

Date: Friday, 13/06/2008 10:47:41 AM  
 User: Julie Lecocq

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : STEP SPACER  
 Job Number : 39861B  
 Estimate Number : 10378  
 P.O. Number :  
 This Issue : 13/06/2008 S.O. No. :  
 Prsht Rev. : NC Part Number : D30653  
 Drawing Number : D3065 REV. B  
 Project Number : N/A  
 Drawing Revision : B  
 First Issue : / / Type : SMALL /MED FAB Material :  
 Previous Run : 38650B Due Date : 30/06/2008 Qty: 100 Um: Each  
 Written By :  
 Checked & Approved By : JD 08.6.13  
 Comment : Est:C 02.11.01 Incorporated D3066-1 IPP KJ/RF  
 Est Rev:D Now on Water Jet 06-04-11 JLM

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M2024T3S040 2024-T3 .040 sheet



Comment: Qty.: 0.2287 sf(s)/Unit Total: 22.8690 sf(s)  
 Material: 2024 T3 (QQ-A-250/4) 0.040" thick  
 (M2024T3S.040) Batch: \_\_\_\_\_

*farmed @ GFI*

2.0 WATER JET FLOW WATER JET

*PG*



Comment: FLOW WATER JET  
 1-Cut as per Dwg D  
 Dwg Rev: \_\_\_\_\_  
 Prog Rev: \_\_\_\_\_

*Issue 710: 6563 GFI*

*(100)*

2-Deburr if necessary

*CL08/06/13 (100)*

3.0 *QC2* INSPECT PARTS AS THEY COME OFF MACHINE

*PG*



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

*received + inspect for transit damage ensure CAC attached*

*PG 8/7/4 (100)*

4.0 *QC2* SECOND CHECK

*QC2*



Comment: SECOND CHECK

*508/02/07 (100) 10000*

5.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1  
 Deburr Stack

*u/a 508/02/07*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 13/06/2008 10:47:41 AM  
User: Julie Lecocq

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STEP SPACER

Job Number: 39861B

Part Number: D30653

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Bend as per Dwg D3065

*u/a Done at GFI 06/07/07*

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*u/a 06/07/07*

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*BR 08-07-08*

*100*

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT CHEMICAL CONVERSION COAT

*8/7/8*

*50 (100x)*

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: *Sylvie*

*8/7/8*

*50 (100x)*

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*08/07/10*

Job Completion



*MF 08-07-08*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

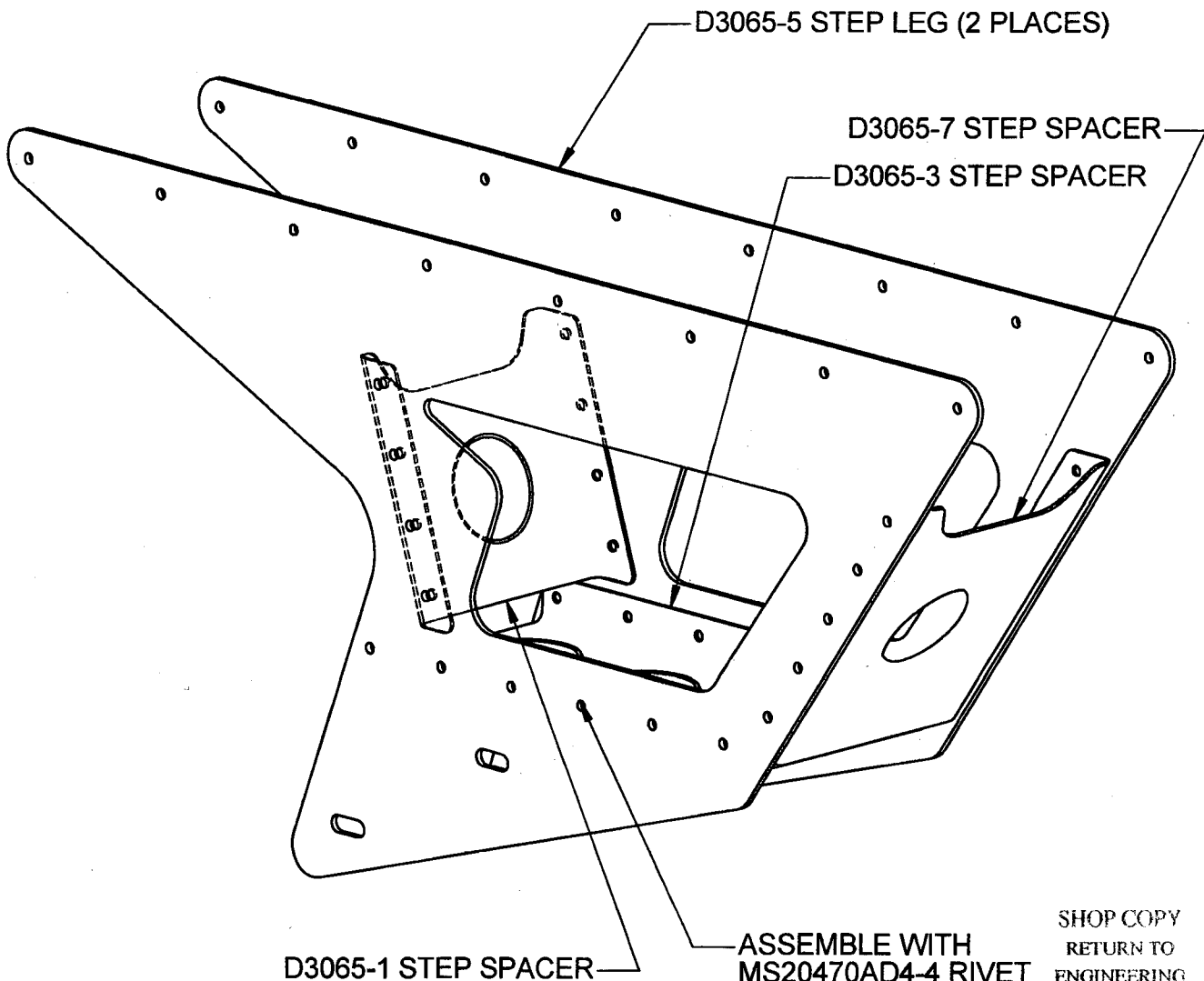
**NOTE:** Date & initial all entries

**DART**

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CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3065</b>	REV. B SHEET 1 OF 5
DATE <b>06.05.23</b>		TITLE <b>STEP LEG ASSEMBLY</b>	SCALE 1:2
A	02.09.11	NEW ISSUE	
B	06.05.23	ADD 6061-T6 MATERIAL, ADD SLOTS TO D3065-5	

**RELEASED**

*06.06.20* *[Signature]*



**D3065-041 STEP LEG ASSEMBLY**

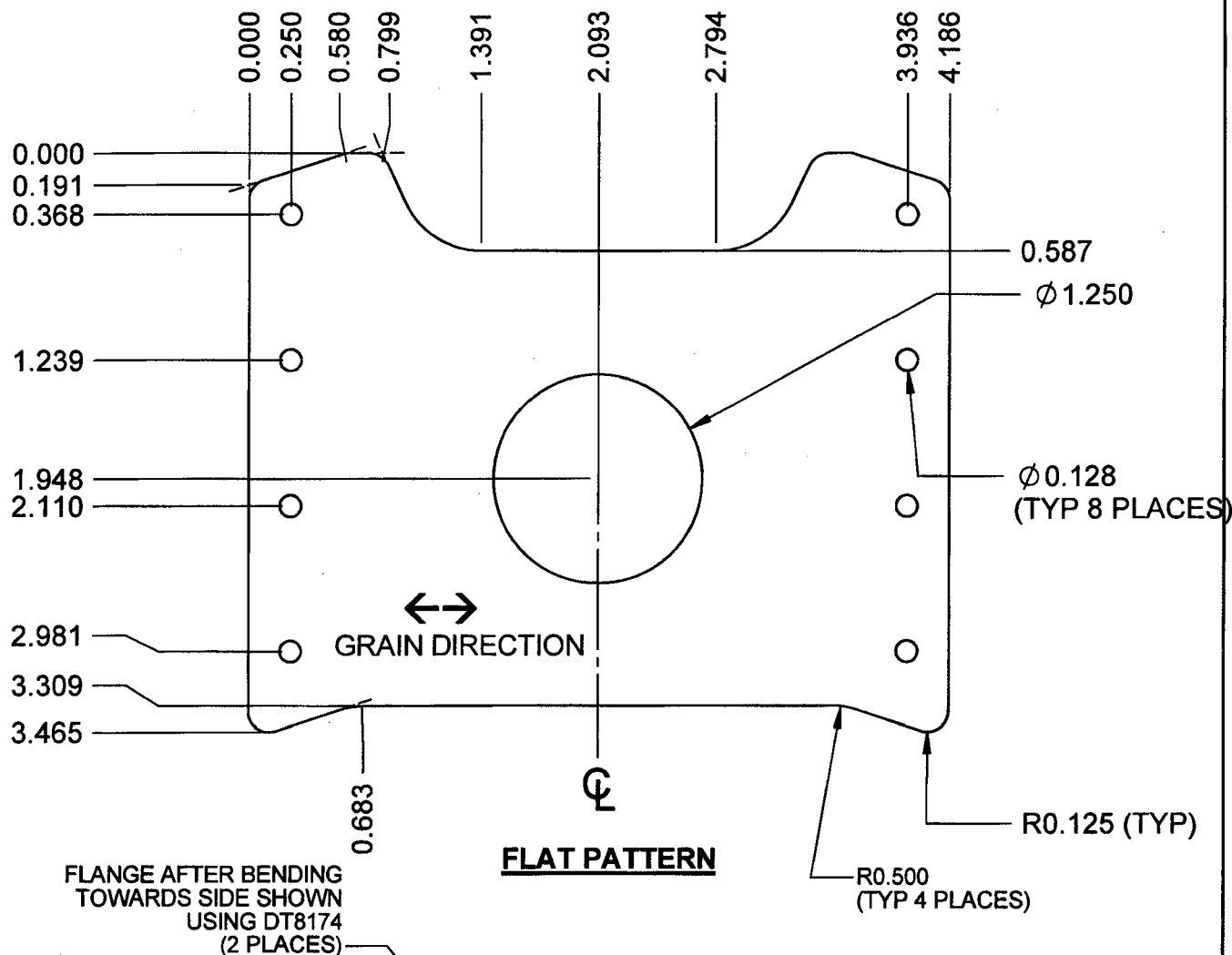
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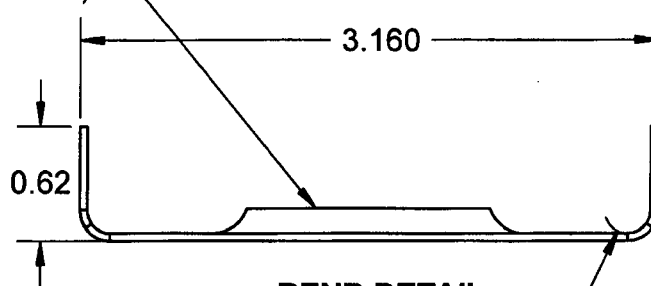
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DATE 06.05.23		TITLE STEP LEG ASSEMBLY	SCALE 1:1



RELEASED  
*cl. de-20*



### D3065-1 STEP SPACER

- 1) MATERIAL: 2024-T3 (QQ-A-250/4) 0.040 THICK (REF DART SPEC. M2024T3S.040)
- 2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

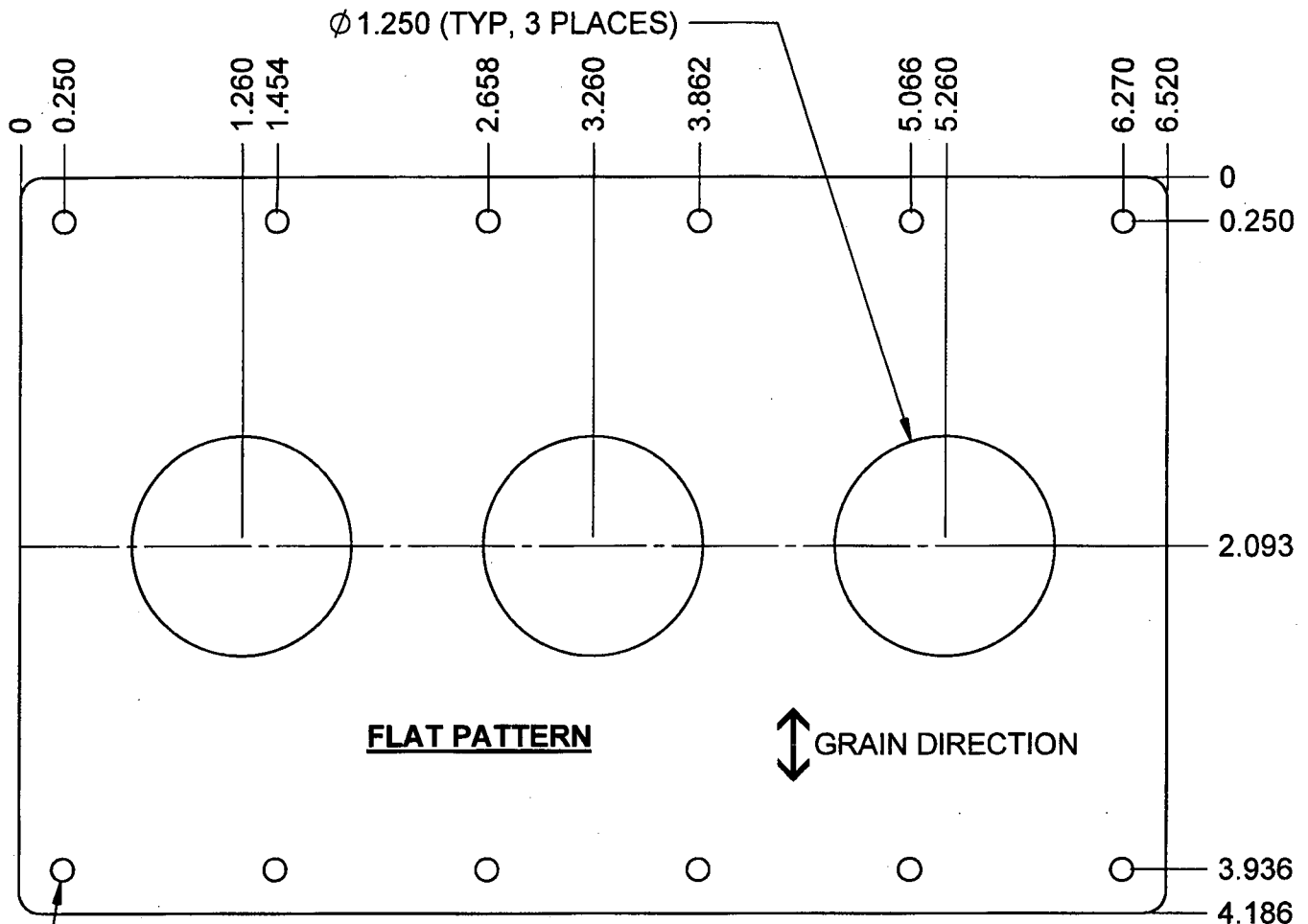
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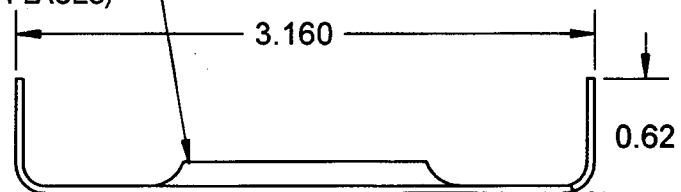
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CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3065</b>	REV. B SHEET 3 OF 5
DATE <b>06.05.23</b>		TITLE <b>STEP LEG ASSEMBLY</b>	SCALE 1:1

FLANGE AFTER TOWARDS SIDE  
SHOWN USING DT8174 (3 PLACES)

Ø 0.129 (TYP, 12 PLACES)

**RELEASED***06.06.20* *[Signature]***BEND DETAIL**SHOP COPY  
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WORK ORDER

NO. *31801B***D3065-3 STEP SPACER**

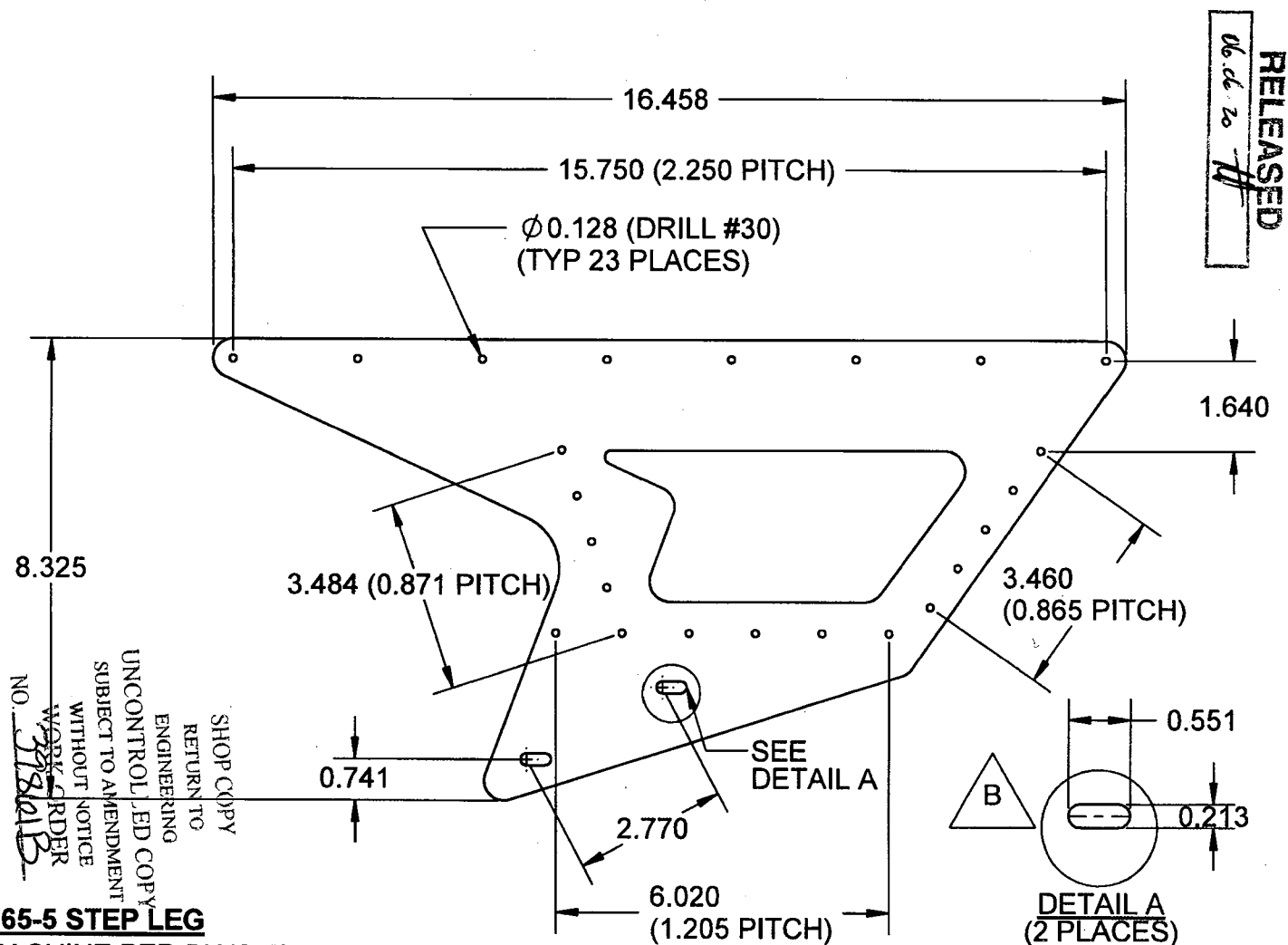
- 1) MATERIAL: 2024-T3 (QQ-A-250/4)  
0.040 THICK (REF DART SPEC. M2024T3S.040)
- 2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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PH	PH	DRAWING NO. D3065
DATE	06.05.23	TITLE STEP LEG ASSEMBLY
		SCALE 1:3
		REV. B SHEET 4 OF 5



**D3065-5 STEP LEG**

- 1) MACHINE PER DWG FILE "D3065-5.SLDPRT"
- 2) MATERIAL: 6061-T6 (PER QQ-A-250/11 OR AMS 4025 OR AMS 4027) 0.080" THICK (REF DART SPEC M6061T6S.080)  
OR  
5052-H32 (PER QQ-A-250/8 OR AMS 4016) 0.080 THICK (REF DART SPEC. M5052H32S.080)
- 3) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

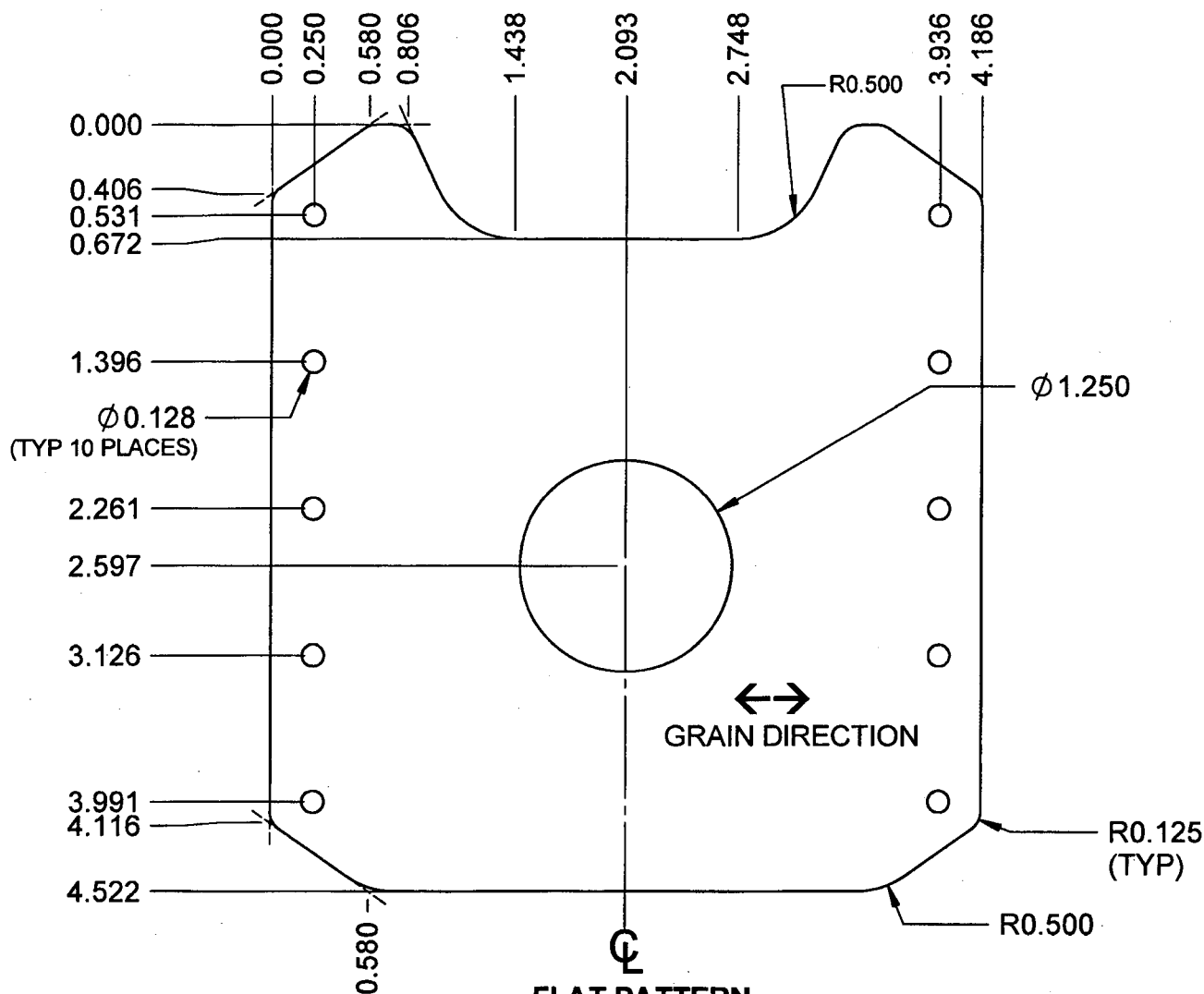
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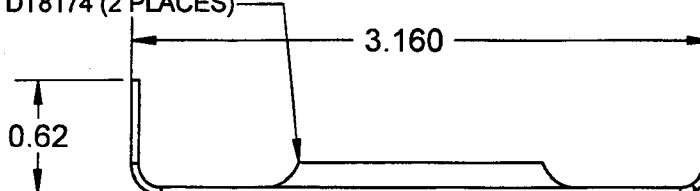


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DATE <b>06.05.23</b>		TITLE <b>STEP LEG ASSEMBLY</b>	SCALE 1:1



FLANGE AFTER BENDING TOWARDS  
SIDE SHOWN USING DT8174 (2 PLACES)

**FLAT PATTERN****BEND DETAIL****RELEASED***de de 20***D3065-7 STEP SPACER**

- 1) MATERIAL: 2024-T3 (PER QQ-A-250/4) 0.040 THICK (REF DART SPEC. M2024T3S 040)
- 2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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NO. *318013*

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180 AVENUE LABROSSE  
POINTE-CLAIRE, QUÉ., CANADA H9R 1A1  
TÉL.: (514) 630-4877 - FAX: (514) 630-4849

GFI est une division de Thomas & Betts Fabrication Inc. / GFI is a division of Thomas & Betts Manufacturing Inc.

VENDEU À / SOLD TO

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON, K6A 1K7



# BONDE LIVRAISON - SHIPPING MEMO

DATE DE LIVRAISON SHIPPING DATE	N° BON DE LIVRAISON SHIPPING MEMO NO.
2008/07/02	0397185

EXPÉDIÉ À / SHIPPED TO

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON, K6A 1K7

CODE DE CLIENT CUSTOMER CODE		N° DE CONTRAT JOB NO.	N° COMMANDE PO NO.	VIA SHIP VIA
DART GFI-0299		J0185127	PO00006563	
QUANTITÉ QUANTITY	VOTRE N° DE PIÈCE YOUR PART NO.	DESCRIPTION		
100	D30653	STEP SPACER		

08/07/02

TOUTES LES RÉCLAMATIONS DOIVENT ÊTRE FAITES EN DEDANS DE 5 JOURS DE LA RÉCEPTION  
ALL CLAIMS MUST BE MADE WITHIN 5 DAYS OF RECEIPT OF GOODS.

RECU PAR / RECEIVED BY

CERTIFICATE OF COMPLIANCE  
CERTIFICAT DE CONFORMITE



Membre de / A Member of **Thomas & Betts**

180 LABROSSE AVENUE  
POINTE CLAIRE, QC  
H9R 1A1

**DART AEROSPACE LTD**  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7

CERTIFICATE NO.	4	OUR JOB NO	J0185127	SHIPPING MEMO	0397185	
ITEM	QUANTITY	PURCHASE ORDER	PART NUMBER	REV	NAME	DWG ISSUE
--	100 PCS	PO00006563	D30653	B	STEP SPACER	B
MATERIAL		SUPPLIED BY		MAT. REL. NO.		
AL 2024-T3 (QQ-A-250/4)		SAMUEL / KAISER ALUMINUM		411944A2		
PROCESS			PROCESSOR	RELEASE NOTE #		
1	FIRST ARTICLE INSPECTION REPORT ON FILE			GFI	CONFORMS	
2						
3						
4						
5						
6						
7						
8						
9						

WE HEREBY CERTIFY ALL THE PARTS COVERED BY THIS CERTIFICATE HAVE BEEN MANUFACTURED FROM MATERIAL SUPPLIED ON RELEASE NOTE SHOWN ABOVE AND THAT ALL PARTS HAVE BEEN INDIVIDUALLY INSPECTED AND CONFORM TO THE DRAWINGS AND PURCHASE ORDER REFERENCED ABOVE.

DATE 02 JULY 2008

G.F.I. Q.C. REP.

B. Samei





Programme d'Assurance Qualité Enregistré / Registered Q.A. Program  
ISO 9001:2000 AS9100

**LETTRE DE CONFORMITÉ – LETTER OF COMPLIANCE**

**Date:** 18 JUIN 2008

**Company Name:** G.F.I. Division of Thomas & Betts limited  
**Address:** 180 avenue Labrosse  
**City:** Pointe Claire, Qué.  
**Zip Code:** H9R 1A1

**# du client:** 73751  
**Customer's order #:**

**# de commande SSMQ:** 881160  
**SSMQ's Order #:**

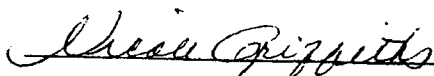
La présente est pour certifier que le matériel détaillé ci-dessous est conforme aux exigences de votre commande et des normes du grade tel que décrit:

The following is to certify that the material listed below meets your order requirements and grade standards as described:

Notre/Our Item #	# de pièces/ # of pieces	Épaisseur/Grandeur Guage/Size	Alliage/Trempe Alloy/Temper	Spécification / Specification	Lot/Heat
1	2	.040" X 48" X 144"	2024 T3	AMS-QQ-A-250/4	411944A2

Bien à vous,  
Yours truly,





Commis à l'administration.  
Administration Clerk.

SHIP TO: SAMUEL MISSISSAUGA 2360 DIXIE ROAD MISSISSAUGA, ON, CA L4Y1Z7
SOLD TO: SAMUEL LAVAL 2225 FRANCIS HUGHES LAVAL, PQ, CA H7S1N5

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4112280

BL 101120

CUSTOMER PO NUMBER: N20349		WORK PACKAGE:		CUSTOMER PART NUMBER:		SHP RUN/LOAD ID: 101120/6		GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1058202	LINE ITEM: 2	SHIP DATE: 1-NOV-2007	ALLOY: 2024	CLAD: BARE	TEMPER: T3	PRODUCT DESCRIPTION: MILL FINISH_COIL			
WEIGHT SHIPPED: 4442 LB	QUANTITY: 1 PCS EST.	SPL NUMBER: 2015028	GAUGE: 0.0400 IN		WIDTH: 48.000 IN	LENGTH: 0.000 IN			

### Certified Specifications

AMS 4037/RevN  
CMMP 019/RevD

AMS-QQ-A-250/4/RevA  
CMMP 025/RevR

ASTM B 209/Rev06

Test Code: 1504

### Test Results

Lot: 411944A2 Cast 398 Drop 18 Ingot 2

(ASTM E8/B557)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T3	LT / 2 (Min:Max)	68.1 : 68.1 (470 : 470)	46.8 : 47.0 (323 : 324)	17.9 : 18.3

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.10	0.29	4.5	0.60	1.4	0.02	0.12	0.02	0.01	0.00	TOT 0.04

### ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
2024 MIN	0.00	0.00	3.8	0.30	1.2	0.00	0.00	0.00	0.00	0.00	EACH	0.05
MAX	0.50	0.50	4.9	0.9	1.8	0.10	0.25	0.15	0.05	0.05	TOT	0.15

Aluminum Remainder

### CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR

*Bill Poy*